Daily Report August 5, 2010

R/V Ferrel
Lauren Tom and Krystle Chavarria

1. Arrived at sampling station (09:00).
2. Today's stations are at shallower depths following a 900m contour. The rationale behind this is to be able to revisit these sites once the R/V Ferrel is outfitted with a sediment corer. During the meeting with the chief scientists from the Ferrel, Ocean Veritas, and Brooks McCall, the plume likely met the seafloor at depths above 1100m, and these depths would be ideal for sediment sampling.
3. BOD sampling was discontinued after determining that probe values taken from the CTD correlated with values resulting from the Winkler Method.
4. Water pumped from the ship's storage tank has almost completely clogged our water filtration system. Orange/brown colored water noticed in inlet tubing. DI water significantly reduced. RO and sterile DI water not being produced. Filter replacements ordered from the Shaw Group and will be delivered at port. The plan is to replace the filters and connect tubing to the ship's potable water.
5. R/V Ferrel should return to port Friday evening and depart for Mission 6 on Saturday.
6. Sampling begins (09:30)
7. Lauren=DNA, RNA, Krystle=AODC, Stable Isotope, VOA Analysis, Nutrient Chemistry, Culturing, PLFA, Uncontaminated plume depth water, Glycerol Stocks, BOD
8. Sampling Nomenclature

SW-YYYYMMDD-VesselMission#-SampleID
BP-TransectNumber##-SamplingSite##

First station

57 miles W/SW of wellhead. No DO decline or fluorescence peak but a slight rise in DO at 5m from seabed

SW-20100805-FER5-xx
BP-TN09-SS**03**

1. First sample:
   SW-20100805-FER5-**01** (890m)
   BP-TN09-SS03
   - AODC, DNA (4L), RNA (4L), Stable Isotope, VOA Analysis, and Nutrient Chemistry, BOD, PLFA (Sterivex 600mL + MoBio Filter 1.4L), uncontaminated plume depth water (3L), glycerol stocks (3-2mL)
2. Second sample:
   SW-20100805-FER5-**04** (800m)
   BP-TN09-SS03
   - AODC, DNA (4L), RNA (4L), Stable Isotope, VOA Analysis, and Nutrient Chemistry, BOD, PLFA (Sterivex 600mL + MoBio Filter 1.4L),

Second station

61 miles W/SW of wellhead. No DO decline or fluorescence peak

SW-20100805-FER5-xx
BP-TN09-SS**04**

1. First sample:
   SW-20100805-FER5-**06** (883m)
   BP-TN09-SS04
   - AODC, DNA (4L), RNA (4L), Stable Isotope, VOA Analysis, and Nutrient Chemistry, BOD, PLFA (Sterivex 600mL + MoBio Filter 1.4L)
2. Second sample:
   SW-20100805-FER5-**08** (730m)
   BP-TN09-SS04
   - AODC, DNA (4L), RNA (4L), Stable Isotope, VOA Analysis, and Nutrient Chemistry, BOD, PLFA (Sterivex 600mL + MoBio Filter 1.4L)

Third station

63 miles W/SW of wellhead. Small DO decline approximately 0.3 mg/l spread between 600 and 700m depth. No fluorescence peak.

SW-20100805-FER5-xx
BP-TN09-SS**05**

1. First sample:
   SW-20100805-FER5-**10** (871m)
   BP-TN09-SS05
   - AODC, DNA (4L), RNA (4L), Stable Isotope, VOA Analysis, and Nutrient Chemistry, BOD, PLFA (Sterivex 600mL + MoBio Filter 1.4L)
2. Second sample:
   SW-20100805-FER5-**12** (670m)
   BP-TN09-SS05
   - AODC, DNA (4L), RNA (4L), Stable Isotope, VOA Analysis, and Nutrient Chemistry, BOD, PLFA (Sterivex 600mL + MoBio Filter 1.4L)
3. Third sample:
   SW-20100805-FER5-**14** (500m)
   BP-TN09-SS05
   - AODC, DNA (4L), RNA (4L), Stable Isotope, VOA Analysis, and Nutrient Chemistry, BOD, PLFA (Sterivex 600mL + MoBio Filter 1.4L)